U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office
Species Account
HAIRY ORCUTT GRASS
Orcuttia pilosa

Hairy Orcutt Grass
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CLASSIFICATION: ENDANGERED
Federal Register Notice 58:14338; March 26, 1997
http://ecos.fws.gov/docs/federal_register/fr3057.pdf (125 KB)

STATE LISTING STATUS AND CNPS CODE
This species was listed as endangered by the California Department of Fish and Game. The California Native Plant Society has placed it on List 1B (rare or endangered throughout its range).

CRITICAL HABITAT: Originally designated in Federal Register 68:46683; August 6, 2003.

The designation was revised in 70:46923; August 11, 2005.

Species by unit designations were published in 71:7117; February 10, 2006.
www.fws.gov/policy/library/2006/06-1080.html
www.fws.gov/policy/library/2006/06-1080.pdf (6.6 MB)

RECOVERY PLAN: Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon; December 15, 2005.
http://www.fws.gov/sacramento/es/recovery_plans/vp_recovery_plan_links.htm

5-YEAR REVIEW: Completed June 2009
http://ecos.fws.gov/docs/five_year_review/doc2578.pdf

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DESCRIPTION
Hairy Orcutt grass (*Orcuttia pilosa*) is a small, tufted annual in the grass family (Poaceae). This species and the threatened slender Orcutt grass (*O. tenuis*) grow together over a portion of their respective ranges but are readily distinguished. (See Orcuttieae Grasses below for more information)

Slender Orcutt grass has fairly slender stems that often branch from their upper nodes. Spikelets are evenly spaced, not densely crowded. Hairy Orcutt grass stems branch only from lower nodes. Upper spikelets are densely crowded. As the species' name implies, it has more hairs. See Hickman (1993) in General Information

about California Plants below for more details about the two species.

Hairy Orcutt grass has several stems 5 to 20 centimeters (2.0 to 7.9 inches) long and 1 to 2 millimeters (0.04 to 0.08 inch) in diameter. Almost the entire plant is pilose (bearing long, soft, straight hairs), giving it a grayish appearance. The terrestrial leaves are 3 to 6 millimeters (0.12 to 0.24 inch) wide. The inflorescence is 5 to 10 centimeters (2.0 to 3.9 inches) long and contains between 8 and 18 flattened spikelets. The spikelets near the tip of the inflorescence are crowded together, whereas those near the base are more widely spaced.

VERNAL POOLS:
Vernal pools are a unique kind of wetland ecosystem. Central to their distinctive ecology is their ephemeral nature. Vernal pools fill with water temporarily, typically during the winter and spring, and then disappear until the next rainy season.

In California, where extensive areas of vernal pool habitat developed over a long geological timeframe, unique suites of plants and animals have evolved that are specially adapted to the unusual conditions of vernal pools. Fish and other predators are among species that have been excluded evolutionarily byte annual filling and drying cycles of vernal pools.

The prolonged annual dry phase of the vernal pool ecosystem also has prevented the establishment of plant species typical of more permanent wetland ecosystems. .

ORCUTTIEAE GRASSES:

The genera *Orcuttia*, *Neostapfia* and *Tuctoria* form the Orcuttieae tribe. All members of the Orcuttieae tribe share several characteristics that differ from many other grasses. Most grasses have hollow stems, but the Orcuttieae have stems filled with pith (the soft, spongy center found in many plants). Another difference is that the Orcuttieae produce two or three different types of leaves during their life cycle, whereas most grasses have a single leaf type throughout their life span.

The juvenile leaves of the Orcuttieae, which form underwater, are cylindrical and clustered into a basal rosette. After the pool dries, terrestrial leaves form in all species of the tribe. These leaves have flattened blades and are distributed along the stem.

Another characteristic common to all Orcuttieae is the production of an aromatic exudate, which changes from clear to brown during the growing season. The exudate most likely helps to repel herbivores

Orcuttia species have a third type of leaf that is not found in *Neostapfia* or *Tuctoria*. The terrestrial leaves of the Orcuttieae also differ from other grasses in other respects. Whereas grass leaves typically are differentiated into a narrow, tubular sheath that clasps the stem tightly and a broader blade that projects away from the stem, terrestrial leaves of the Orcuttieae are broad throughout and the lower portion enfolds the stem only loosely.

DISTRIBUTION

This species is found on high or low stream terraces and alluvial fans. It grows in Northern Basalt Flow, Northern Claypan, and Northern Hardpan vernal pools within annual grasslands. Measured pools range from 0.34 to 250 hectares (0.8 to 617.5 acres).

Currently, the main area of concentration is the Vina Plains in Tehama County, which is in the Northeastern Sacramento Valley Vernal Pool Region. More occurrences are in the Southern Sierra Foothills Vernal Pool Region, including Madera and eastern Stanislaus Counties. Occurrences in the Solano-Colusa Vernal Pool Region are on the Sacramento National Wildlife Refuge in Glenn County.

U.S. Geological Survey 7.5 Minute Quads: Lanes Bridge (379A) 3611987, Gregg (379B) 3611988, Herndon (379C) 3611978, Madera (380A) 3612081, Daulton (399C) 3711918, Kismet (400D)* 3712011, Yosemite Lake (421B)* 3712044, Merced (421C) 3712034, Cooperstown (441A)* 3712065, Paulsell (441B)* 3712066, Montpelier (441C) 3712056, Turlock Lake (441D) 3712055, Logandale (562B) 3912242, Hamlin Canyon (576B) 3912166, Richardson Springs NW (593B) 3912188, Vina (594A) 3912281. (*Presumed extirpated)

THREATS

Agricultural and residential developments, and planning for such, are proceeding in the vicinity of the remaining Stanislaus and Madera County occurrences and may lead to the destruction of additional populations in the foreseeable future. Also, competition from invasive plants is believed to be an increasing problem throughout the range of the species.

Many extant hairy Orcutt grass sites are grazed. Livestock grazing and associated trampling may or may not adversely affect vernal pool plants depending on, among other things, the kind of livestock, stocking level, season of use and grazing duration. The intensity and, more importantly, the timing of this activity affect how livestock grazing may adversely impact vernal pool plants.

REFERENCES FOR ADDITIONAL INFORMATION

General references about California plants
www.fws.gov/sacramento/es/plant_spp_accts/plant_references.htm

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Last updated December 28, 2009